

REMARKS

Applicants have now reviewed the Examiner's rejections of claims 1-8 and 13. Reexamination and reconsideration are respectfully requested.

The Office Action

The Office Action Summary defined this present Office Action as "non-final." However, paragraph 4 of this Office Action designated the Office Action as "final." To determine whether a typographical error existed, Applicants contacted the Examiner in charge of the application. The Examiner reviewed the electronic entry of this Office Action, and stated that the Office Action is "non-final."

Claims 1-8 and 13 were presented for examination.

All claims stand rejected as being anticipated by Kiyohara. The Office Action states that, while the reference numbers of the rejection remain the same as the previous Office Action, the rejection now is based on an embodiment shown in Figure 8 of Kiyohara.

Independent claims 1, 5 and 13 are distinguished from the cited art.

In rejecting the independent claims, reference is made to Figure 8 of Kiyohara as showing, ". . . the paper 47 being fed between the guide 3 and spring 52 as the spring 52 presses the paper 47 against the guide 3. The printhead 48 extends past the paper guide 3 at its top end as shown in Figure 8."

It is further alleged that with respect to claim 5, ". . . the bottom edge of printhead 48 (as shown in Figure 8 of Kiyohara) is positioned over the point where spring 52 contacts paper guide 3."

In reviewing Kiyohara, and in particular Figure 8, it is appreciated that as stated by the Examiner, it is the top end of printhead 48 which extends past the paper guide 3, *i.e.*, in the down-stream position relative to the paper guide.

However, as is clearly shown in Figure 1 of the present application, the edge (632) extending past the paper guide 610 is the backside or trailing edge portion of the printing device 630. This is an important aspect, as having the edge extending past the paper guide 610 at a position upstream of the paper guide, permits an image to be formed along a trailing edge of the paper. The design of Kiyohara, would not permit such an arrangement in accordance with the elements of the recited claims. Specifically, if one would move the

printing device 48 of Kiyohara past the edge of paper guide 3 (on the upstream side), the printhead 48 would be printing on the spring 52.

Thus, Kiyohara is similar to the types of systems the present application describes in the background of the invention as a conventional image forming system. Such systems were noted to be unable to produce an image along a trailing edge of paper due to physical interference between internal components forming a paper path, *e.g.*, manipulating the paper, and components capable of forming the image. In particular, the existing systems cannot move the printing device past the paper guide (on the upstream side), to position the printing device for trailing edge printing.

On the other hand, by having an arrangement as shown in Figure 1, it is possible to move the printing device 630 to extend beyond the paper guide, upstream of the paper guide, whereby the printing area 635 of the printing device 630 is located in a position to permit the trailing edge printing at the position where the biasing member 600 meets the paper guide 610.

While applicants believe the previous claims address this concept, the claims have again been amended to more particularly note that, for example, in claim 1 that the printing device extends beyond the paper guide to a position upstream of the paper guide. This clarifies that this clause of claim 1 does not permit this to be interpreted as the top portion of the printing element 48 of Kiyohara.

Claim 13 has been amended to also specify that the edge of the printing device which extended beyond the paper guide is that end where the position is upstream from the paper guide.

New claim 17 further defines the distinguishing aspects of the present concepts from the cited art.

New claims 18-20 more particularly define the position upstream of the paper guide as being a direction opposite the direction of travel of the paper in the paper path.

New claims 21-23 more particularly define the position of the printing area extending to at least a central axis of the paper guide.

For the reasons detailed above, it is submitted all claims are distinguished from the cited Kiyohara reference.

CONCLUSION

In view of the foregoing, it is submitted all claims (1-4, 6-8 and 13-23) are now in condition for allowance. An early notice to that effect is therefore earnestly solicited.

Respectfully submitted,

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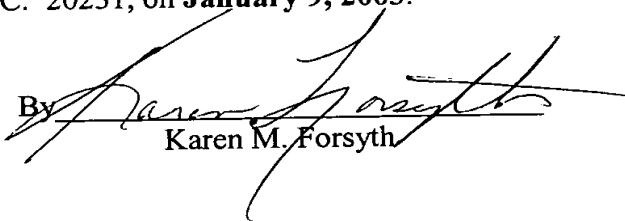
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Attachment: Version With Markings to Show Changes Made

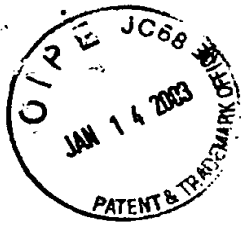
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I hereby certify that this Amendment B is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner of Patents and Trademarks, Washington, D.C. 20231, on **January 9, 2003**.

By



Karen M. Forsyth

**VERSION WITH MARKINGS TO SHOW CHANGES MADE****In the Claims**

Please cancel claim 5.

Please amend pending claims 1, 6, 7 and 13 as follows:

1. (Twice Amended) A trailing edge deletion prevention apparatus suitable for use with an image forming system, comprising:

a paper guide mounted along a paper path and adapted to guide paper along said paper path; and

a biasing member mounted to said image forming system and biased against said paper guide along said paper path and allowing a printing device to be moved over said paper while allowing an edge of said printing device to extend beyond said paper guide to a position upstream of the paper guide and to print along a trailing edge of said paper.

6. (Amended) The trailing edge detection prevention apparatus of claim [5] 17, wherein said paper guide is a roller and is mounted perpendicular to said paper path and adapted to be rotatably mounted about an axis perpendicular to said paper path.

7. (Amended) The trailing edge detection prevention apparatus of claim [5] 17, wherein said biasing member is a pinch spring.

13. (Twice Amended) A method for preventing deleting a trailing edge of a piece of paper processed by an image forming system, comprising the steps of:

biasing a biasing member against a paper guide;

passing a piece of paper between said biasing member and said paper guide such that said piece of paper is taut to a location further along a paper path; and

moving a printing device over said piece of paper while allowing an edge of said printing device to extend beyond said paper guide to a position upstream of the paper guide, to allow an image to be formed along a trailing edge of said paper.

Please add new claims 17-23 as follows:

17. (New) A trailing edge deletion prevention apparatus suitable for use with an image forming system, comprising:

a movable printing device having at least a first edge, and a printing area;

a paper guide mounted along a paper path and adapted to guide paper along said paper path; and

a biasing member mounted to said image forming system and biased against said paper guide to cause said paper to be taut to a location further along said paper path and configured to accommodate the movable printing device wherein the first edge of said printing device extends beyond said paper guide to a position upstream of the paper guide, and wherein the printing area of the printing device is substantially located over a position where the biasing member and the paper guide meet.

18. The apparatus according to claim 1, wherein the position upstream of the paper guide is in a direction opposite the direction of travel of the paper in the paper path.

19. The method according to claim 13, wherein the position upstream of the paper guide is in a direction opposite the direction of travel of the paper in the paper path.

20. The apparatus according to claim 17, wherein the position upstream of the paper guide is in a direction opposite the direction of travel of the paper in the paper path.

21. The apparatus according to claim 1, wherein the printing area extends to at least a central axis of the printing guide.

22. The method according to claim 13, wherein the printing area extends to at least a central axis of the printing guide.

23. The apparatus according to claim 17, wherein the printing area extends to at least a central axis of the printing guide.